A Feature-Based Approach to the Comparative Study of “Nonordinary” Experiences

Ann Taves *

Department of Religious Studies
University of California at Santa Barbara

Michael Barlev

Department of Psychology
Arizona State University

Author Contributions. AT and MB outlined the manuscript. AT drafted the manuscript, with extensive edits by MB. Both authors approved the manuscript for submission.

Acknowledgements. The authors thank Elliott Ihm for reviewing the conceptual structure and preventing some missteps, and Pascal Boyer and Kathy Johnson for feedback on an early draft.

Funding Statement. The writing of this manuscript was supported by John Templeton Foundation grant #61187 and by a subgrant funded by John Templeton Foundation grant #35279. The funding source had no involvement other than financial support.

Declaration of Conflicting Interests. The authors declared that there were no conflicts of interest with respect to the authorship or the publication of this article.

* Correspondence should be addressed to Ann Taves, Department of Religious Studies, University of California, Santa Barbara. anntaves@ucsb.edu

© 2022, American Psychological Association. This paper is not the copy of record and may not exactly replicate the final, authoritative version of the article. Please do not copy or cite without authors' permission. The final article will be available, upon publication, via its DOI: [10.1037/amp0000990](https://doi.org/10.1037/amp0000990)

ABSTRACT. At the turn of the 20th century, researchers and clinicians compared case studies of patients diagnosed with hysteria and mediums who claimed to channel spirits based on alterations they observed in their sense of self. Yet, notwithstanding its early promise, this comparative approach to such “nonordinary experiences” (NOEs) was never fully realized due to disciplinary siloing and the challenges involved in comparing culture-laden accounts. Today, psychologists tend to reify constructs, such as religious or spiritual, extraordinary (psychical, paranormal, anomalous, or exceptional), and psychopathological. In doing so, they face an unresolved challenge: experiences with phenomenologically distinct features may be appraised similarly within a culture (that is, viewed as evidence for the same culturally-specific construct) and experiences that share phenomenological features may be appraised differently across cultures. Here, we call for a renewed approach to comparing NOEs across cultures that prioritizes subjectively recognizable features instead of constructs. First, we review the history of the comparative approach in psychology and where it is today. Second, we introduce a feature-based approach, building on the event cognition literature, where “lived experiences” are broken down into their phenomenological features and the claims made about them. Third, we propose ways in which cultural learning shapes experiences, and possibly the ordinary-nonordinary distinction itself. We conclude by highlighting that by building on and shifting the focus of previous efforts, the feature-based approach provides a way to compare experiences at the population level.

KEYWORDS. Religious Experiences; Nonordinary Experiences; Psychopathology; Culture; Cross-Cultural Comparison

PUBLIC SIGNIFICANCE STATEMENT. Researchers and clinicians have long recognized the phenomenological overlap between experiences classified as religious or spiritual, extraordinary, and psychopathological. Here, we present a new theoretical approach for mapping similarities and differences in such experiences across cultures while honoring the ways in which culture shapes experiences. Doing so can shed line on questions such as why certain experiences are distressing (and classified as psychopathological) in some cultures but not in others.

In *The Dissociation of a Personality* (Prince 1905/1978), neurologist Morton Prince recounted a description by his patient, pseudonym Christine Beauchamp, of an experience in which it seemed to her as if there was another self in her body.¹

[Beauchamp], in a depressed, despondent, rather angry frame of mind, was looking at herself in the mirror. ... Suddenly she saw, notwithstanding the seriousness of her thoughts, a curious, laughing expression—a regular diabolical smile—come over her face. It was not her own expression, but one that she had never seen before. It seemed to her devilish, diabolical, and uncanny, entirely out of keeping with her thoughts. ... a feeling of horror came over her at what she saw. ... She saw herself as another person in the mirror. ... It suddenly occurred to her to talk to this ‘thing,’ to this ‘other person,’ in the mirror; to put questions to ‘it.’ So she began, but she got no answer. Then she realized that the method was absurd, and that it was impossible for her to speak and answer at the same time. Thereupon she suggested to the ‘thing’ that it should *write* answers to her questions. (Ibid., pp. 360-363.)

Prince (1905/1978, pp. 361-363) presents the written answers offered by the “thing,” whom he knew as an alter named “Sally,” to which Beauchamp had added her spoken questions. The dialogue opened with Beauchamp asking “Who are you?” to which Sally responded “A spirit.”

Although Sally referred to herself as a spirit, Prince—based on their many previous exchanges—thought that Sally was simply pretending to be a spirit when she actually knew she was part of the patient (i.e., Beauchamp) as a whole. Nonetheless, although he viewed Sally’s emergence as the result of “subconscious mental action,” he was fully aware that in an earlier

¹ Christine Beauchamp was a pseudonym for Clara Fowler, a college student who, according to Prince, developed three main “personalities”: BI (“the saint”), BIII (“Sally”), and BIV (“the realist”). BII was Prince’s name for BI when hypnotized. This incident was recounted to Prince by BIV (for more on Fowler, see [Rosenzweig, 1987, 1988](#)).

time Beauchamp would have been viewed as demonically possessed. By way of contrast, Richard Hodgson, the psychical researcher who assisted Prince with Beauchamp's care, viewed Beauchamp as a potential medium who might possess extraordinary abilities (Kenny, 1981). In doing so, Hodgson offered a third way of framing alterations in the sense of self that was neither psychopathological nor traditionally religious.

As researchers and clinicians generally recognize, there is phenomenological overlap between experiences they variously classify as religious or spiritual, extraordinary (psychical, paranormal, anomalous, or exceptional), and psychopathological. Alterations in the sense of self are a key feature of spirit possession, mediumship, and dissociative disorders. Involuntary bodily movements, such as speaking in tongues or automatic writing, are associated with possession by the Holy Spirit or spirits of the deceased, mediumistic channeling, and conversion disorders. Seeing visions of heavenly realms, hearing the voice of a deity, and perception-like experiences via non-sensory means (ESP) meet core criteria for hallucinations.

The longstanding fascination with such “nonordinary” experiences (NOEs)—by researchers and clinicians alike—is due in large part to their impact on people's lives—both positive and negative—and the outsized claims associated with them. At the turn of the last century, psychologists initiated comparisons of case studies of spiritual mediums and patients diagnosed with hysteria. However, within a few decades such comparisons were largely abandoned by psychologists. As psychical research came to be viewed as pseudo-scientific, the boundaries between it and experimental psychology hardened (Coon, 1992); at the same time, the emergence of disciplinary subfields, such as psychiatry and the psychology of religion, stabilized the classification of experiences based on their clinical impact and/or the claims

associated with them, thereby obscuring the extent to which categories such as “psychopathological” and “religious” are themselves culture-bound (Taves, 2014).

Although there is much to commend in these early efforts, they suffered from two major limitations. First, they were overly focused on evidential claims. Although some researchers sought to better understand alterations in the sense of self, others were caught up in either establishing or debunking their epistemological value. Second, researchers relied on case studies rather than populations level comparisons, with the notable exception of the Census of Hallucinations conducted by the Society for Psychical Research in 1894 (Denning, 1994).

Here, we call for a renewed comparative approach to the study of NOEs that builds on and at the same time shifts the focus of those early efforts, and that more fully considers how cultural learning shapes experiences, including the ordinary-nonordinary distinction itself. Doing this requires overcoming two theoretical hurdles. First, the investigation of experiences relies on first-person accounts that blend phenomenological features with appraisals of what was happening both while it was occurring and upon later reflection. Because appraisals are culturally constructed, experiences that share phenomenological features may be appraised differently across cultures, and experiences with phenomenologically distinct features may be appraised similarly within a culture (that is, viewed as evidence for the same culturally-specific construct). To overcome this, some researchers have distinguished between the phenomenological features of experiences and their appraisals in interviewing protocols (Brett et al., 2007) and to a more limited extent in surveys (Fach et al., 2013; Irwin et al., 2013); as we suggest here, this approach can and should be used to compare experiences across cultures.

Second, most surveys rely on researcher defined constructs that presuppose that the ordinary-nonordinary distinction is cross-culturally stable. However, experiences that stand out

for people relative to what they consider ordinary or everyday may be culture-dependent (Maraldi & Krippner, 2019). To overcome this, we suggest researchers cast a wider net to focus on experiences that share several key characteristics: they are subject to conflicting interpretations, the interpretations often involve outsized claims (e.g., psychopathology, intervention by deities or other forces, or extraordinary abilities), and they often have a pronounced effect on people’s lives—both positive and negative. Here, we use “NOEs” to refer to experiences that stand out to people or are marked by them as special (Dissanayake, 1988; Keane, 2010; Taves, 2009a) relative to what they consider ordinary or everyday, without assuming that the ordinary-nonordinary distinction is cross-culturally stable.²

We begin by reviewing promising aspects of the comparative approach that emerged at the turn of the last century, while highlighting the lack of attention paid to the ways culture shapes experiences (Section 1) and the limited progress since that time (Section 2). We then build on that foundation to develop a feature-based approach in which “lived experiences” are broken down into their phenomenological features and the claims made about them (Section 3). Finally, we propose ways in which culture and experiences interact, noting that the ordinary-nonordinary distinction itself may be culture-dependent (Section 4). We conclude by highlighting future directions and promises for the comparative study of experiences (Section 5). As a whole, we provide a theoretical framework for extending the comparative approach from case studies to populations; this allows researchers to investigate the universality and diversity of experiences that stand out to people and the interaction between cultures and experiences.

² Researchers should not assume that people view experiences that occur frequently as ordinary or everyday. Holidays, for example, occur frequently, but nonetheless stand out for people to varying degrees relative to ordinary days. Similarly, when people regularly experience the presence of supernatural agents, we cannot assume that they view them as ordinary (i.e., as not standing out relative to the everyday). This is an empirical question that should be tested.

In advancing this proposal, we recognize the difficulties inherent in interdisciplinary collaboration, especially between researchers trained in the sciences and those trained in the humanities. To be successful, humanities scholars, steeped in the diversity of lived experiences, need to be open to the possibility of cross-culturally stable experiential features and willing to collaborate on refining quantitative methods for identifying them. At the same time, scientists, who focus on psychological commonalities, need to more fully appreciate the extent to which cultural learning can affect both the nature and impact of experiences. Because people hold divergent—often fervent—views regarding the ontological reality of extraordinary beings and abilities, all researchers should acknowledge the limits of their methods and avoid speaking to matters—as researchers—that their evidence cannot address.

1. The Comparative Approach at the Turn of the 20th Century

The Society for Psychical Research (SPR), founded in 1882 by a mixed group of researchers and Spiritualists, investigated mediums and other subjects whom they thought might offer empirical evidence of phenomena not yet recognized by the science of the day (Gauld, 1968). In focusing on mediums who claimed to channel spirits, the SPR rejected the longstanding choice between medical and religious interpretations, opting instead to investigate whether the alterations in the sense of self they observed in these mediums offered evidence for their extraordinary claims. The SPR thus became a site from which to investigate experiences that researchers viewed as potentially abnormal, normal, or supranormal (Myers, 1885), or, in contemporary terms, as psychopathological, ordinary, or extraordinary. When Prince enlisted Hodgson to assist him with Beauchamp's care, Hodgson approached Beauchamp as a psychical researcher rather than as a clinician. He wrote letters to Sally and conducted experiments to test

whether Sally—with her distinctive knowledge and personality—was more than a product of Beauchamp’s subconscious (Prince, 1905/1978, p. 358).

At the point when Hodgson got involved with Beauchamp, he had already been investigating the self-described spiritualist medium Leonora Piper for over a decade. Hodgson, in his study of Mrs. Piper, which was conducted at the behest of the American Society for Psychical Research, investigated her claim that she was able to communicate with the spirits of the dead. SPR members who attended sittings with Mrs. Piper differed sharply in their views. William James, who discovered Mrs. Piper in 1885, came to “believe her to be in possession of a power not yet explained” (Gauld, 1968, 253-266). Hodgson eventually concluded that spirits really were speaking through her and began to lead his life in accordance with their teachings (ibid). Prince ultimately shut Hodgson off from further experiments on Beauchamp, likely because he feared that Hodgson might try to convince Beauchamp that she had mediumistic abilities instead of supporting his clinical interpretation and therapeutic aims (Kenny, 1981).

The questions swirling around Mrs. Piper and Beauchamp were part of a larger intellectual conversation about the nature of the self that was taking place within a transatlantic network of clinicians, psychologists, and psychical researchers interested in alterations and divisions in the sense of self. Their research agenda, dubbed the “experimental psychology of the subconscious” (Taylor, 1984, 1996), was grounded in the clinically-oriented French psychological tradition exemplified in the work of Pierre Janet (Nicolas 2002, pp. 145-153). Janet, professor of experimental psychology at the Collège de France, focused on cases of “hysteria” involving the alternation of “personalities,” and used hypnosis and “automatic writing” to reveal the “fixed ideas” of subordinated aspects of the self that were causing distress (Ellenberger 2006, pp. 331-417; Gauld 1992, 369-400). William James and the Swiss

psychologist Theodore Flournoy, as well as others associated with the SPR, extended the case study method to investigate spiritualist mediums who claimed to be in touch with discarnate spirits. Together, psychologists, including Janet, James, and Flournoy, and psychical researchers, such as Hodgson, Frederic Myers, and Eleanor and Henry Sidgwick, constituted a network that was well-represented at the earliest International Congresses of Experimental Psychology (Sommer, 2011; Taylor, 1996).

The research conducted by the SPR raised fundamental questions about the nature of the self (Oppenheim, 1988), which are still relevant to psychologists today (Kelly et al., 2007). Was it naturally unitary but capable of fragmentation under duress, or was it naturally multiplex, such that shifts between centers of consciousness could produce changes that were either “retrogressive [abnormal] or progressive [supranormal]”? The former view, generally adopted by clinically oriented psychologists, such as Prince and Janet (later in his career; Evrard et al., 2018), presupposed that fragmentation was pathological, and that the fragments were all parts of the self. The latter view was advanced by Myers, who James viewed as the SPR’s leading theoretician. In his magnum opus, *Human Personality and its Survival of Bodily Death*, Myers (1903) presented automatisms (mental images and bodily movements that arise “without the initiation ... of conscious thought and will” [p. xv]) as evidence for the existence of multiple centers of consciousness, and offered evidence that he felt demonstrated that consciousness was separable from the body. James, following Myers, left open the possibility that consciousness could exist apart from the body (Knapp, 2017; Taves, 2009b).

Nonetheless, the openness of many SPR members to supranormal possibilities did not preclude more conventional psychological explanations. Both Flournoy, in his landmark study of the medium Hélène Smith (Flournoy 1900/1994), and Eleanor Sidgwick, in her book-length

study of Mrs. Piper (Sidgwick, 1915), recognized the role of suggestion and accounted for their subjects' experiences in conventional psychological terms. Whatever their views regarding consciousness and the body, psychologists who investigated such phenomena in the general population, such as James and Flournoy, were convinced, as many of the clinicians were not, that alterations and/or divisions in the sense of self were not inherently psychopathological.

The emergent comparative approach pioneered at the turn of the 20th century was never fully realized, however. Although researchers recognized that their subjects made dramatically different claims about experiences with similar phenomenological features, their focus was on the evidential value of the experiences—on whether the experiences offered evidence of mental illness, extraordinary abilities, or religious or spiritual realities. Although Flournoy and Sidgwick recognized that the proliferation of seances and mediums who claimed exceptional abilities was linked to the rise of the Spiritualist movement in the latter part of the 19th century, this did not lead to widespread interest in the effects of cultural learning on experiences among members of the SPR (Taves, 2014). By the early 1900s, the emergent comparative approach was largely overcome by disciplinary sub-specializations within psychology that hardened the boundary between the psychological study of psychopathological and religious experiences, and rejected the study of psychical and mediumistic phenomena as pseudo-scientific (Coon, 1992).

2. The Comparative Approach Today

With some notable exceptions (Clarke, 2001; Kirmayer, 2005; Kirmayer & Ryder, 2016; Luhrmann, 2011; McCauley & Graham, 2019; Parnas & Henriksen, 2016), psychiatrists and scholars of religion have maintained a disciplinary focus on researcher-defined constructs; this made it difficult to compare experiences across cultures despite their phenomenological overlap. Psychiatrists generally focus on distressing experiences, which they view as symptoms of mental

disorders; in religious studies and the psychology of religion, researchers tend to focus on experiences they view as religious, spiritual, and mystical (Moser & Meister, 2020).

Over time, the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM) has come to acknowledge the overlap between religious and psychopathological experiences. The DSM-3R (American Psychiatric Association 1987) indicated that "hallucinations occurring in the course of an intensely shared religious experience generally have no pathological significance" (p. 398). Under pressure from psychiatric anthropologists and cultural psychiatrists (Littlewood, 1992), the DSM-4 (American Psychiatric Association 1994) extended such caveats to Conversion Disorders (p. 455) and Dissociative Disorders, indicating with respect to the latter that "a cross-cultural perspective is particularly important in the evaluation of Dissociative Disorders because dissociative states are a common and accepted expression of cultural activities or religious experience in many societies" (p. 477). The DSM-5 (American Psychiatric Association 2013, p. 14; Lewis-Fernández & Aggarwal 2013)—recognizing that diagnosis and culture are deeply intertwined—acknowledged that "mental disorders are defined in relation to cultural, social, and familial norms and values." Despite this recognition, the DSM does not acknowledge the role of competing interpretations outside of the narrow scope of religious rituals, nor the extent to which people seek out culturally-esteemed specialists to "diagnose" a wide range of puzzling experiences that occur in everyday life (Delmonte et al., 2016; Padmanabhan, 2017).

Nor have transpersonal and anomalistic psychologists, the contemporary heirs of the psychical researchers and parapsychologists, taken a cross-cultural approach. Transpersonal psychologists are primarily interested in the effects of experiences on people's lives (Palmer & Hastings, 2013). In light of this, they have, however, encouraged psychiatrists to adopt a more

sensitive approach to distressing religious experiences and to include a new diagnostic category of “Religious and Spiritual Problem” in the DSM-IV (Turner et al., 1995). Psychologists studying anomalous experiences have focused on and continued to debate the evidential value of experiences that potentially challenge modern science (Cardena et al., 2000). Although these lines of research have contributed to our understanding of NOEs and played important roles in integrating the study of NOEs into psychology and psychiatry, their focus has not been on cross-cultural comparisons that would highlight the effects of cultural learning on what counts as extraordinary experiences (Maraldi & Krippner, 2019).

Anthropologists, by way of contrast, have a longstanding interest in the interplay between culture and the experiences associated with trance, spirit possession, and shamanism, particularly in small-scale societies (Boddy, 1994). Both anthropologists and psychologists have sought to understand the relationship between spirit possession and dissociative identity disorder (Cardena et al., 2009; Maraldi et al., 2017; Spanos, 1994). In recent years, anthropologists have engaged in increasingly nuanced discussions about the diversity of views of the self and persons across cultures, thus returning to questions raised by the SPR (see e.g., Naraindas et al., 2014). In a mixed methods study in five countries, Luhrmann et al. (2021), found that viewing the self as more porous (rather than bounded) and engaging in practices that facilitated absorption predicted a greater prevalence of reported “spiritual presences.” Nonetheless, when people report such experiences more often, we still do not know if the experience becomes more ordinary for them or continues to stand out. We applaud these efforts and seek to build on them.

At the turn of the last century researchers and clinicians, recognizing the phenomenological overlap between the experiences reported by their subjects, compared case studies of patients diagnosed with hysteria and mediums who claimed to channel spirits. But they

demonstrated little interest in exploring the effects of cultural learning on these and other experiences. Their comparative efforts were derailed by the quest for experiences that challenged “conventional science” (i.e., “White Crows”) and undercut by the emergence of disciplinary subspecialties that essentialized their objects of study as, for example, mental disorders and religious experiences. Today, psychologists struggle with the tension between presumably universal mental features and their local or culture-laden instantiations, with cross-cultural psychologists prioritizing the first and cultural psychologists the second (Berry, 2013; Shweder, 2015). If we adopt the feature-based approach advanced here, however, we can survey experiences across cultures based on shared phenomenological features, without losing sight of the wide range of experiences that may stand out for people in some cultures but not others.

3. A Feature-Based Approach for Comparing Lived Experiences Across Cultures

3.1. Lived Experiences and Shared Features

When researchers compare two or more self-reported lived experiences, they do so based on a shared feature (Poole 1986). Here, we use “lived experiences” to emphasize that first-person accounts of experiences are laden with claims: they are interpreted in real-time, reconstructed and reinterpreted after the fact, and in the process infused with culture-specific knowledge. Our focus is not on lived experience in the abstract but on specific lived experiences; whereas the former (abstract use) refers to the flow of information in so far as the perceiver is aware of it, the latter (specific use) refers to discrete events that have been carved out of the flow of information (Taves & Asprem 2017). NOEs thus are personally experienced (i.e., lived) events that stand out for people. In making comparisons, we need to be careful not to equate the claims-laden lived experiences reported by subjects with the phenomenological³ feature or features that their lived

³ Phenomenology, which “studies conscious experience as experienced from the subjective or first-person point of view,” is sometimes restricted to the characterization of sensory qualities, i.e., what the experience was like, and

experiences may share with those of others. Similarly, it is important not to confuse the possible stability of phenomenological features with the instability of lived experiences, since people reflect on and reinterpret their lived experiences throughout their lives.

We can identify the key components (or building blocks) that interact to generate lived experiences if we think of experiences as events (Taves & Asprem, 2017, 2020). An “event” is “a segment of time at a given location that is conceived by an observer to have a beginning and an end” (Zacks & Tversky 2001, p. 3). The flow of information from the environment and the body is structured by event schemas to produce a working model of what is happening. Although event schemas are likely built on top of reliably developing and universally-shared templates, they are also to a large extent culturally learned and therefore can vary between people. The flow of information and the event schemas are components that interact to produce the working model. The working model, which is consciously accessible and—if remembered—can give rise to narratives, is a partial representation of the information available to subjects based on what they deemed relevant in light of their implicit event schema (Radvansky & Zacks, 2014).

At the level of components, a feature-based approach is premised on a distinction between the information people are processing and their event schemas. Although people’s self-reports of their experiences reflect their schema-driven working models, their narratives often retain evidence of the information—both external (from the environment) and internal (from the body; Taves & Asprem, 2017)—that gave rise to the working model. At the level of self-reports, a feature-based approach is premised on researchers’ ability to anchor investigations in generically worded and potentially cross-culturally recognizable phenomenological features, and

other times enlarged to include the meaning and significance of events as they arise and are experience in our “life world” (D. W. Smith, 2018). Here we use “phenomenological” features of an experience to refer to aspects of what it was like or seemed like and appraisals or claims to refer to the meaning or significance that is ascribed to the experience as it occurs or after the fact.

respondents' ability to recognize these features in their (schema-laden) lived experiences. Both these premises would need to be tested.

We can illustrate both the nuances and promise of this approach if we return to our opening case studies. To compare the experiences of Beauchamp and Piper, we need to identify shared features anchored in perceptions, bodily sensations, or feelings that they would recognize in their lived experiences, without discounting their schema-laden working models of what was occurring. In both cases a presumed "other" communicated via automatic writing and identified itself as an entity other than its host. But whereas Beauchamp was conscious of interacting with "Sally," Piper was allegedly in trance and not consciously aware of what was occurring when her spirit "control" ("Phinuit") interacted with the sitters at her seances. If so, Piper would not have direct experience of another self in her body. Thus, Beauchamp and Piper would have likely reported different subjective experiences even though some observers viewed both as manifesting secondary personalities and others viewed both as channeling spirits.

The fact that phenomenologically distinct features may be appraised similarly highlights the risks of imposing observer-defined constructs. When observers infer the presence of an "other" in a person's body and label them as possessing spirits, animal selves, or alter personalities, they invoke culture- or discipline-specific appraisals (spirit possession, shamanism, or dissociative identity disorder) that do not necessarily reflect or rely on the subject's experience. Anthropologists have recognized this and stressed that it is often observers who determine what is happening based on the subject's behavior rather than the subject's report of their inner experience (Harvey, 2010; Humphrey, 1994). The DSM-5 (American Psychiatric Association, 2013, p. 292) also notes that the key feature of dissociative identity disorder—a disruption "in sense of self and sense of agency"—may be "observed by others or reported by the

individual.” When researchers start with cultural concepts, such as spirit possession (Harvey, 2010) and mystical experience (Taves, 2020), they wind up debating the criteria that should be used to define or operationalize them. In the absence of stable definitions, psychologists tend to operationalize constructs based on presumed universals, whereas scholars in the humanities tend to focus on particulars and resist comparisons.

We can get beyond this impasse if we start not with constructs, but with generic features, which – in Luhmann’s terms – are grounded in “specific bodily anchors” (Luhmann 2020, p. 115). Bodily anchors, as we are using the term, are subjectively accessible bodily sensations, feelings, or perceptions. These bodily anchors range from experiences that are relatively common (e.g., “meaningful coincidences”, sudden insights, crying, goosebumps) to those that are relatively rare (e.g., seeing visions and hearing voices [hallucinations], the sensation of the leaving the body [OBEs], the inability to move when falling asleep or waking [sleep paralysis], or the sense of the body performing actions outside one’s control [automaticity]). Bodily anchors, as Luhmann indicates, have different affordances and thus give rise to different culture-specific interpretations.⁴ As Luhmann illustrates (p. 115), “everyone cries. But only in settings when strong emotion makes sense as an experience of divinity will crying be deemed [appraised as] religious and be treated as evidence of supernatural presence.”

Our overall contention is that by distinguishing between phenomenological features (bodily affordances) and culturally learned appraisals, we can investigate the way they interact. Before considering these interactions, we first situate event schemas and appraisals within the

⁴ Luhmann distinguishes bodily affordances from anomalous experiences. She defines the former as “events of the body” that are available for interpretation, and the latter as “specific patterns of events ... which are outside the range of everyday experiences” (pp. 115-116). Insofar as anomalous experiences have specific bodily anchors, we view them as bodily affordances and urge caution about presupposing that the ordinary-nonordinary distinction is culturally stable.

wider cultural interpretive frameworks that people draw upon to interpret their lived experience. We then discuss the need to survey a wide range of bodily affordances that might stand out for people based on their cultural interpretive frameworks.

3.2. Cultural interpretive frameworks

When people segment the flow of information into events, event schemas, such as “attending a séance,” provide the “scaffolding” that structure the event components and generate a working model of what is happening. The event schemas are nested within a wider set of conceptual relations (Bennardo & De Munck, 2014, pp. 37-56). An “attending a séance” event schema, not only sets out expectations for how “sitters” should behave, it is linked to the belief that the personality survives bodily death and that the living can communicate with the dead through mediums.

Cultural framework theories allude to this wide network of relations. As conceptualized by Bang et al. (2007), “cultural framework theories provide individuals with skeletal principles for meaning making, including beliefs about what sorts of things are relevant, worthy of attention and in need of explanation.” In addition, as Bender (2019, p. 6) indicates, they contain representations of causal structure and thus invite inferences regarding cause-effect relations. Cultural frames thus not only allow people to predict *what* is happening, they also provide a basis for making inferences about *why* it happened.

As confirmed by behavioral and neuroimaging studies, cultural frameworks shape what we attend to during an event, how an event is interpreted in real-time, and how an event is reconstructed after the fact (e.g., Bransford & Johnson, 1972). In fact, even in highly controlled settings where people are presented with the exact same event, differing expectations cause dramatic differences in how the event is interpreted (e.g., Yeshurun et al. 2017). As a result of

cultural differences, people may thus have different frameworks for determining what events are worthy of attention, principles for making sense of events as they occur, and expectations regarding the kinds of events that can occur to begin with.

Cultural frames embed expectations about the nature of the world—the agents and objects it contains and the causal relations between them—as well as about the nature of the self and its relation to others (Markus & Kitayama, 1991, 2010). These expectations are carried not only by religious and spiritual traditions, but also by healing traditions, whether Western or traditional folk medicine. Morton Prince viewed Beauchamp as a fragmented self, while Richard Hodgson viewed her as a multiplex self that might be channeling a discarnate spirit. Mrs. Piper and most who attended her séances viewed her as a spiritualist medium, but others, such as Eleanor Sidgwick, viewed her seances as elaborate trance performances (Sidgwick 2015, p. 330). As with Beauchamp and Piper in turn-of-the-century Boston, multiple interpretive frames can coexist within a given society and even within an individual (Legare & Shtulman, 2018).

Cultural frames shape expectations. In the case of Spiritualists, their cultural frame not only shaped their expectations regarding the existence of spirits of the dead and the desire of these spirits to communicate with the living, but also their expectations regarding how, when, and where spirits would do so—through mediums at séances. Other cultural frames generate different expectations. In sub-Saharan Africa, people expect that ancestors will interact with them in dreams (Kiernan 1985). In Sufi mystical traditions, dreams are regarded as a source of divinely-inspired insights and even revelation; although among Muslims who rely on the authority of the Qur'an and Sunnah alone, such claims are regarded as superstitious (Mittermaier 2011). In India, adherents of popular Hindu traditions expect that deities and spirits will possess people (F. M. Smith 2006) and animate statues and images (Eck 1998). In Native American

traditions, spiritual presences tend to be associated with special places such as mountains, trees, and rivers (Basso 1996). In Europe, Catholic teachings and devotional practices led to widespread expectation that Jesus was really present in the communion wafer and that the Virgin Mary could appear as an apparition and interact with ordinary people (Zimdars-Swartz 1991). In contrast, Protestantism rejected such claims as superstitious and, in societies such as the U.S. with its historical roots in Protestantism, the sense of divine presences is often limited to mental or bodily sensations that subjects feel are not their own (Luhrmann 2012; Mould 2011).

3.3. Casting a wider experiential net

To investigate whether the experiences that stand out for people vary across cultures, we cannot presuppose a stable understanding of the ordinary or everyday. As Durkheim (Durkheim, 1912/1995, p. 35) recognized, people can set anything apart as sacred.⁵ We use “nonordinary” to extend Durkheim’s idea of “things set apart” to encompass whatever “things [are] marked as worthy of special attention,” in keeping with Keane’s (2010) discussion of “marking,” Dissanayake’s (1988, 98-101) discussion of “making things special,” and Taves’s (2009, 28-47) discussion of “special things and things set apart.” The feature-based approach, which separates features from culture-laden appraisals, allows us to compare a wide range of experiences that might stand out for people across cultures, including bodily sensations, feelings, and perceptions that researchers might consider ordinary.

⁵ We are expanding here on Durkheim’s definition of religion as “moral communities” that “adhere to ... beliefs and practices relative to sacred things, that is to say, things set apart and forbidden” (Durkheim 1912/1995, 44).

4. How culture and experiences interact

4.1. How Culture Shapes Experiences

Cultures and traditions valorize and cultivate some experiences while disparaging and pathologizing others.⁶ As such, they have the potential to make experiences seem more or less ordinary and, thus, to influence the likelihood that people will notice, remember, and recount those experiences. They do this by: (1) marking particular experiences and the situations in which they are thought to occur as worthy of special attention (Keane 2010), (2) encouraging people to actively cultivate certain experiences, and (3) discounting the markings that people attach to certain experiences. We consider each of these in more depth. We additionally consider (4) how culture shapes the extent to which experiences are viewed as distressing, which highlights a clinical implication of our framework.

(1) *When people mark experiences and the situations in which they are thought to occur as worthy of special attention they can turn experiences that may seem ordinary to others into experiences that stand out for them.* The desire for vengeance may be culturally widespread, but in indigenous Amazonian societies it was cultivated and valorized within an honor-oriented worldview that centered on inter-tribal warfare. Sixteenth century Jesuit sources describe how, in such societies, the ritualized eating of their enemies was linked to “an insatiable desire for vengeance” (Castro, 2011, p. 84). According to Castro, in such societies, “to die in foreign [i.e., enemy] hands was an honor for a warrior, but an insult to the honor of his group, and it imposed the requirement of an equivalent reply” (p. 63). Deaths were vividly recalled during ritualized “drinking feasts” where “the memory of their past evils [i.e., killing enemies] becomes new again, and beginning to puff up with pride they soon burn with the desire to kill enemies and

⁶ Although we use “culture” loosely to refer to the beliefs and practices of populations, we view our use as compatible with a “middle-range” definition of culture as “patterned practice” (Roepstorff et al., 2010).

hunger for human flesh” (p. 85). During these rituals, warriors recounted memories of past killings, which in turn heightened their desire for vengeance (p. 86).⁷

Latter-day Saints (LDS) believe that God continues to offer revelation for the entire Church through its presidents—who are considered prophets—and to offer personal revelation to the Church’s faithful. When then-LDS president Gordon B. Hinckley was asked how he receives divine revelation, he responded that it comes in a “still, small voice” (Lattin, 1997). LDS experience the “voice”—as Hinkley did—in their mind or heart, as a thought or feeling that stands out because it arrives suddenly or forcefully (Mould, 2011, pp. 46, 195-197). Although others may also notice such thoughts and feelings, LDS mark them as potential signs of revelation, which dramatically heightens their importance and encourages LDS attend to them (see Luhrmann, 2012, for similar experiences cultivated by charismatic evangelical Christians).

(2) When people are encouraged to seek certain experiences and to actively cultivate them, otherwise infrequent experiences might become more common. In many indigenous societies, people adopt a radical personalist ontology in which they anthropomorphize animals, objects, and places, and engage with them as persons (Harvey, 2010). In traditional Amazonian cultures in which humans are thought to have double selves (animal and human), animals are considered persons and shamans assume their animal body during healing rituals (Vilaça, 2010). Religious traditions do this as well. Hindus priests ritually imbue images and statues with the presence of the deity and people express their devotion through seeing (darshan) and making offerings to (puja) the deity (Eck, 1998). Objects also become persons in Catholicism when the priest transforms the bread and wine into the body and blood of Christ and encourages devotion

⁷ The centrality of ritualized vengeance and cannibalism in warfare among these societies is reflected in the difficulty of eliminating the practice, which included legally “prohibit[ing] them from eating human flesh and making war without permission from the Governor” (Castro, 2011, p. 77) and most decisively “interning” Indian children in boarding schools where Jesuits inculcated “a sacred horror” for the practice (p. 98).

to the consecrated “host.” Religious traditions also routinely link sacred events with particular places and/or times of the year and people make pilgrimages to sacred places and engage in special activities on holy days. Thus, if we were to ask people if they had interacted with objects or places that seemed to contain a nonordinary presence or power, we would responses that varied based their cultural beliefs and practices.

Both indigenous societies and religious traditions regularly encourage practitioners to engage in practices—such as visualization, meditation, prayer, singing, chanting, dance, and/or psychoactive drug use—in the context of rituals that they claim lead to valued experiences. Here, too, we would expect that those who engage in such practices would have the valued experiences more often (Roepstorff et al. 2010). When people regularly engage in visualization practices in which they cultivate mental images (e.g., of sacred scenes, objects, or symbols), these images may become more vivid and realistic (Luhrmann & Morgain, 2012; Noll et al., 1985). Long-term meditators can induce experiences, such as compassion, that produce short-and long-term neural changes (Lutz et al., 2008). When people move or vocalize synchronously it can lead to an experience of entrainment, in which the boundaries between the individual and the group blur, and which can generate a sense of unity or oneness (Jackson et al., 2018; Reddish et al., 2016). Psychoactive drugs, which typically produce NOEs including the sense of leaving one’s body, perceiving and communicating with extraordinary beings, and ego dissolution, have a long history of use in religious rituals (Winkelman & Hoffman, 2016).

(3) *When cultures disparage experiences, people may be less likely to attend to them or remember them when they occur; when cultures pathologize experiences, people may be reluctant to report them.* Cultural traditions not only valorize some experiences, they actively disparage others. We see this play out in encounters and conflicts between cultures. When

Christian missionaries encountered indigenous societies in the Americas, they actively disparaged many of their beliefs and practices and urged them to adopt others. In the Amazon, Jesuit missionaries viewed the indigenous peoples as “inconstant,” because they eagerly incorporated aspects of the Christian belief, while at the same time inciting conflicts with neighboring groups to take vengeance on and eat their enemies (Castro, 2011, p. 20).

We see this play out within cultures as well. Beginning in the 16th century, Protestants rejected Catholic claims about the presence of Christ in the communion wafer and appearances of the Virgin Mary to the faithful; many Protestant traditions also rejected Catholic claims about visions, voices, and miraculous healings. In doing so, they dramatically narrowed the range of experiences that they considered religiously and spiritually significant. When suppressing such experiences, Protestant church leaders offered alternative explanations, such as ignorance, delusion, and illness (Taves 1999). Some experiences, such as sudden healings, were secularized and normalized. Others, such as visions and voices, were pathologized. Still others, such as sleep paralysis, initially went unexplained; fearing that their episodes of sleep paralysis were signs of mental illness, many were reluctant to report them (Hufford 1982).

When people disparage certain experiences or deem them less worthy of attention, they may be less likely to notice those experiences when they occur or remember them afterwards. Most people experience coincidences that seem meaningful, but some traditions, such as New Age and Jungian, encourage people to attend to them as synchronicities (Russo-Netzer & Icekson, 2020). Atheists and agnostics, in contrast, may actively disparage the belief that coincidences can be “meaningful” and deliberately ignore them.

4) The profound ways in which culture shapes experiences may mean that the extent to which experiences are viewed as distressing may depend on the way they are appraised. When

James suggested that religious innovators were particularly prone to “mental instability,” as well as other “peculiarities ... ordinarily classed as pathological,” he framed experiences valued by religious practitioners in pathological terms (James 1902/1985, p. 15). When hallucinations are framed positively as visions, voices, or divine apparitions and dissociative experiences as mediumship or channeling, people often seek the experiences or venerate those who have them. Moreover, as researchers are now recognizing, people do sometimes have distressing experiences in the context of religious practices, such as meditation. Yet many traditions anticipate such difficulties and frame them as signs of progress on a spiritual path, thus mitigating their negative effects (Lindahl et al., 2020).

When Luhrmann and colleagues (2015) compared the lived experiences of people who hear voices in the U.S., India, and Ghana, they found differences in the level of distress people reported. Although subjects in all three cultures heard voices, the content of their experiences varied (e.g., what the voices said), as did the way they appraised them (e.g., who they thought the voices were) and how distressing they found them. Americans—who were most likely to pathologize their experiences—reported harsh voices and distressing experiences; many Indians and Ghanaians, in contrast, reported experiences that were much less distressing (e.g., Indians described their voices as close relatives who were at times scolded them, but also gave guidance and reminded them of their domestic duties).

In sum, the interplay between culture and experiences means that researchers cannot assume that experiences that seem ordinary or nonordinary to them or to people within a particular culture would be viewed as such by people within other cultures. Instead, researchers need to distinguish between those experiences that stand out for people across cultures and those that vary based on culture-specific interpretive frames. Although historians and ethnographers

have been doing this on individual and small-scale level, it is time for psychologists to scale these investigations up to the level of populations.

5. Conclusions

At the turn of the 20th century, researchers and clinicians compared spiritualist mediums such as Leonora Piper (Sidgwick, 1915) and distressed individuals such as Christine Beauchamp (Prince 1905/1978) based on a similar phenomenological feature of their experiences: the presence of another self in their bodies. Yet, despite the early promise of this comparative approach, it was largely abandoned as psychical research was sidelined, and replaced by a narrow disciplinary approach that tends to categorize experiences (e.g., as “religious” or “psychopathological”) rather than investigate the extent of their cross-cultural stability.

Ongoing research in anthropology and history makes it clear that culture shapes experiences in profound ways. Because it guides attention and shapes expectations, it has the potential to make some experiences stand out and others recede into the background. Thus, people can mark experiences and the situations in which they are thought to occur as worthy of special attention, or they can discount the markings that others attach to experiences; cultural frameworks can encourage people to actively cultivate certain valued experiences through myriad practices; finally, cultures can tacitly create an environment where NOEs as a whole are downplayed or enhanced. The impact of culture on experiences is such that even the extent to which experiences are viewed as distressing may depend on the way in which they are appraised. Here, we called for a feature-based approach to the cross-cultural comparison of experiences that may stand out to people. We argued that this involves several moves. First, researchers must *separate* the phenomenological features of lived experiences from the (culturally-infused) claims made about them. Second, they must query *both* to investigate the ways they interact. Third, to

identify experiences that stand out for people relative to their ordinary or everyday, researchers need to broaden the range of experiences queried to include some that are relatively common but may still stand out for people in some cultures and contexts.

The séances that were popular in Boston in the early 1900s were part of a larger transatlantic spiritualist movement spanning Europe and much of North America. In exploring the psychodynamics of Mrs. Piper’s “trance performances,” as she called them, Eleanor Sidgwick knew that this spiritualist movement shaped Mrs. Piper’s understanding of her lived experience. Flournoy made a similar observation about the medium Hélène Smith. As such, Sidgwick and Flournoy both understood that cultural learning could shape lived experiences. Here, we suggested that it is time to scale up comparisons of experiences to the population level. The conceptual framework we have presented here allow researchers to begin doing just that.

References

- American Psychiatric Association (Ed.). (1987). *Diagnostic and statistical manual of mental disorders: DSM-III-R* (3rd ed., rev). American Psychiatric Association.
- American Psychiatric Association (Ed.). (1994). *Diagnostic and statistical manual of mental disorders: DSM-IV* (4. ed., 7. print).
- American Psychiatric Association (Ed.). (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (5th ed). American Psychiatric Association.
- Bang, M., Medin, D. L., & Atran, S. (2007). Cultural mosaics and mental models of nature. *Proceedings of the National Academy of Sciences*, 104(35), 13868–13874.
<https://doi.org/10.1073/pnas.0706627104>
- Basso, K. H. (1996). *Wisdom sits in places: Landscape and language among the Western Apache*. University of New Mexico Press.

- Bender, A. (2019). The Role of Culture and Evolution for Human Cognition. *Topics in Cognitive Science*, tops.12449. <https://doi.org/10.1111/tops.12449>
- Bennardo, G., & De Munck, V. C. (2014). *Cultural models: Genesis, methods, and experiences*. Oxford University Press.
- Berry, J. W. (2013). Achieving a global psychology. *Canadian Psychology/Psychologie Canadienne*, 54(1), 55–61. <https://doi.org/10.1037/a0031246>
- Boddy, J. (1994). Spirit possession revisited: Beyond instrumentality. *Annual Review of Anthropology*, 23, 407–434.
- Bransford, J. D., & Johnson, M. K. (1972). Contextual prerequisites for understanding: Some investigations of comprehension and recall. *Journal of Verbal Learning and Verbal Behavior*, 11(6), 717–726. [https://doi.org/10.1016/S0022-5371\(72\)80006-9](https://doi.org/10.1016/S0022-5371(72)80006-9)
- Brett, C. M. C., Peters, E. P., Johns, L. C., Tabraham, P., Valmaggia, L. R., & McGuire, P. (2007). Appraisals of Anomalous Experiences Interview (AANEX): A multidimensional measure of psychological responses to anomalies associated with psychosis. *Br J Psychiatry Suppl*, 51, s23-30. <https://doi.org/10.1192/bjp.191.51.s23>
- Cardena, E., Lynn, S. J., & Krippner, S. (Eds.). (2000). *Varieties of anomalous experience: Examining the scientific evidence*. American Psychological Association.
- Cardena, E., Marjolein van Duijl, M. D., Weiner, L. A., & Terhune, D. B. (2009). Possession/Trance Phenomena. In P. F. Dell & J. A. O'Neil (Eds.), *Dissociation and the Dissociative Disorders: DSM-V and Beyond* (p. 171). Routledge.
- Castro, E. V. D. (2011). *The inconstancy of the Indian soul: The encounter of Catholics and cannibals in 16th-century Brazil*. Prickly Paradigm Press.

- Clarke, I. (Ed.). (2001). *Psychosis and spirituality: Exploring the new frontier* (1st ed.). Whurr Publishers.
- Coon, D. J. (1992). Testing the limits of sense and science: American experimental psychologists combat spiritualism, 1880–1920. *American Psychologist*, 47(2), 143.
- Delmonte, R., Lucchetti, G., Moreira-Almeida, A., & Farias, M. (2016). Can the DSM-5 differentiate between nonpathological possession and dissociative identity disorder? A case study from an Afro-Brazilian religion. *J Trauma Dissociation*, 17(3), 322–337.
<https://doi.org/10.1080/15299732.2015.1103351>
- Denning, T. R. (1994). Death-coincidences or wishful thinking? The Society for Psychical Research and the 1894 Census of Hallucinations. *History of Psychiatry*, 5(19), 397–402.
<https://doi.org/10.1177/0957154X9400501908>
- Dissanayake, E. (1988). *What is art for?* University of Washington Press.
- Durkheim, E. (1995). *The elementary forms of religious life* (K. E. Fields, Ed.). Free Press.
- Eck, D. L. (1998). *Darśan: Seeing the divine image in India* (3rd ed). Columbia University Press.
- Ellenberger, H. F. (2006). *The discovery of the unconscious: The history and evolution of dynamic psychiatry*. Basic Books.
- Evrard, R., Pratte, E. A., & Cardeña, E. (2018). Pierre Janet and the enchanted boundary of psychical research. *History of Psychology*, 21(2), 100–125.
<https://doi.org/10.1037/hop0000086>
- Fach, W., Atmanspacher, H., Landolt, K., Wyss, T., & Rössler, W. (2013). A comparative study of exceptional experiences of clients seeking advice and of subjects in an ordinary population. *Front Psychol*, 4, 65. <https://doi.org/10.3389/fpsyg.2013.00065>

- Flournoy, T. (1994). *From India to the planet Mars: A case of multiple personality with imaginary languages* (S. Shamdasani, Ed.). Princeton University Press.
- Gauld, A. (1968). *The founders of psychical research*. Schocken Books.
- Gauld, A. (1992). *A history of hypnotism*. Cambridge University Press.
- Harvey, G. (2010). Animism rather than shamanism: New approaches to what shamans do (for other animists). In B. E. Schmidt & L. Huskinson (Eds.), *Spirit possession and trance: New interdisciplinary perspectives* (pp. 14–34). Continuum.
- Hufford, D. (1982). *The terror that comes in the night: An experience-centered study of supernatural assault traditions*. University of Pennsylvania Press.
- Humphrey, C. (1994). Shamanic practices and the state in Northern Asia. In N. Thomas & C. Humphrey (Eds.), *Shamanism, history, and the state* (pp. 191–228). University of Michigan Press.
- Irwin, H. J., Dagnall, N., & Drinkwater, K. (2013). Parapsychological experience as anomalous experience plus paranormal attribution: A questionnaire based on a new approach to measurement. *Journal of Parapsychology*, 77(1), 39–53.
- Jackson, J. C., Jong, J., Bilkey, D., Whitehouse, H., Zollmann, S., McNaughton, C., & Halberstadt, J. (2018). Synchrony and Physiological Arousal Increase Cohesion and Cooperation in Large Naturalistic Groups. *Scientific Reports*, 8(1), 127.
<https://doi.org/10.1038/s41598-017-18023-4>
- James, W. (1985). *The varieties of religious experience* (J. E. Smith, Ed.). Harvard University Press.

- Keane, W. (2010). Marked, absent, habitual: Approaches to Neolith religion at Çatalhöyük. In I. Hodder (Ed.), *Religion in the emergence of civilization: Çatalhöyük as a case study* (pp. 187–219). Cambridge University Press.
- Kelly, E. F., Kelly, E. W., & Crabtree, A. (Eds.). (2007). *Irreducible mind: Toward a psychology for the 21st century*. Rowman & Littlefield.
- Kenny, M. G. (1981). Multiple Personality and Spirit Possession. *Psychiatry*, 44(4), 337–358.
<https://doi.org/10.1080/00332747.1981.11024122>
- Kiernan, J. P. (1985). The social stuff of revelation: Pattern and purpose in Zionist dreams and visions. *Africa*, 55(3), 304–318. <https://doi.org/10.2307/1160582>
- Kirmayer, L. J. (2005). Culture, context and experience in psychiatric diagnosis. *Psychopathology*, 38(4), 192–196. <https://doi.org/10.1159/000086090>
- Kirmayer, L. J., & Ryder, A. G. (2016). Culture and psychopathology. *Current Opinion in Psychology*, 8, 143–148. <https://doi.org/10.1016/j.copsyc.2015.10.020>
- Knapp, K. D. (2017). *William James: Psychical research and the challenge of modernity*. The University of North Carolina Press.
- Lattin, D. (1997, April 13). Sunday Interview—Musings of the Main Mormon / Gordon B. Hinckley, ‘president, prophet, seer and revelator’ of the Church of Jesus Christ of Latter-day Saints, sits at the top of one of the world’s fastest-growing religions. *SFGATE*.
<https://www.sfgate.com/news/article/SUNDAY-INTERVIEW-Musings-of-the-Main-Mormon-2846138.php>
- Legare, C. H., & Shtulman, A. (2018). *Explanatory pluralism across cultures and development* (Vol. 1). Oxford University Press. <https://doi.org/10.1093/oso/9780198789710.003.0019>

- Lewis-Fernández, R., & Aggarwal, N. K. (2013). Culture and psychiatric diagnosis. *Adv Psychosom Med*, 33, 15–30. <https://doi.org/10.1159/000348725>
- Lindahl, J. R., Cooper, D. J., Fisher, N. E., Kirmayer, L. J., & Britton, W. B. (2020). Progress or Pathology? Differential Diagnosis and Intervention Criteria for Meditation-Related Challenges: Perspectives From Buddhist Meditation Teachers and Practitioners. *Frontiers in Psychology*, 11, 1905. <https://doi.org/10.3389/fpsyg.2020.01905>
- Littlewood, R. (1992). DSM-IV and culture: Is the classification internationally valid? *Psychiatric Bulletin*, 16, 257–261.
- Luhrmann, T. (2011). Hallucinations and Sensory Overrides. *Annual Review of Anthropology*, 40(1). <https://doi.org/10.1146/annurev-anthro-081309-145819>
- Luhrmann, T. M. (2012). *When God talks back: Understanding the American evangelical relationship with God* (First Vintage Books edition). Vintage Books.
- Luhrmann, T. M., & Morgain, R. (2012). Prayer as Inner Sense Cultivation: An Attentional Learning Theory of Spiritual Experience. *Ethos*, 40(4), 359–389. <https://doi.org/10.1111/j.1548-1352.2012.01266.x>
- Luhrmann, T. M., Padmavati, R., Tharoor, H., & Osei, A. (2015). Differences in voice-hearing experiences of people with psychosis in the USA, India and Ghana: Interview-based study. *British Journal of Psychiatry*, 206(01), 41–44. <https://doi.org/10.1192/bjp.bp.113.139048>
- Luhrmann, T. M., Weisman, K., Aulino, F., Brahinsky, J. D., Dulin, J. C., Dzokoto, V. A., Legare, C. H., Lifshitz, M., Ng, E., Ross-Zehnder, N., & Smith, R. E. (2021). Sensing the presence of gods and spirits across cultures and faiths. *Proceedings of the National Academy of Sciences*, 118(5), e2016649118. <https://doi.org/10.1073/pnas.2016649118>

- Lutz, A., Brefczynski-Lewis, J., Johnstone, T., & Davidson, R. J. (2008). Regulation of the neural circuitry of emotion by compassion meditation: Effects of meditative expertise. *PLoS One*, 3(3), e1897. <https://doi.org/10.1371/journal.pone.0001897>
- Maraldi, E. de O., & Krippner, S. (2019). Cross-cultural research on anomalous experiences: Theoretical issues and methodological challenges. *Psychology of Consciousness: Theory, Research, and Practice*. <https://doi.org/10.1037/cns0000188>
- Maraldi, E. de O., Krippner, S., Barros, M. C. M., & Cunha, A. (2017). Dissociation From a Cross-Cultural Perspective: Implications of Studies in Brazil. *The Journal of Nervous and Mental Disease*, 205(7), 558–567. <https://doi.org/10.1097/NMD.0000000000000694>
- Markus, H. R., & Kitayama, S. (1991). *Culture and the Self. "Implications for Cognition, Emotion, and Motivation.* 30.
- Markus, H. R., & Kitayama, S. (2010). Cultures and Selves: A Cycle of Mutual Constitution. *Perspectives on Psychological Science*, 5(4), 420–430. <https://doi.org/10.1177/1745691610375557>
- McCauley, R. N., & Graham, G. (2019). *Hearing voices and other unusual experiences: What mental abnormalities can teach us about religions.* Oxford University Press.
- Mittermaier, A. (2011). *Dreams that matter: Egyptian landscapes of the imagination.* University of California Press.
- Moser, P. K., & Meister, C. V. (Eds.). (2020). *The Cambridge companion to religious experience.* Cambridge University Press.
- Mould, T. (2011). *Still, the small voice: Narrative, personal revelation, and the Mormon folk tradition.* Utah State University Press.

- Myers, F. W. H. (1885). Automatic writing—II. *Proceedings of the Society for Psychical Research*, 3, 1–63.
- Myers, F. W. H. (1903). *Human personality and its survival of bodily death* (Vol. 1). Longmans, Green, & Co.
- Naraindas, H., Quack, J., & Sax, W. S. (Eds.). (2014). *Asymmetrical conversations: Contestations, circumventions, and the blurring of therapeutic boundaries*. Berghahn.
- Nicolas, S. (2002). *Histoire de la psychologie française: Naissance d' une nouvelle science*. In Press.
- Noll, R., Achterberg, J., Bourguignon, E., George, L., Harner, M., Honko, L., Hultkrantz, A. A., Krippner, S., Kiefer, C. W., Preston, R. J., & others. (1985). Mental Imagery Cultivation as a Cultural Phenomenon: The Role of Visions in Shamanism [and Comments and Reply]. *Current Anthropology*, 26(4), 443–461.
- Olupona, J. K. (2014). *African religions: A very short introduction*. Oxford University Press.
- Oppenheim, J. (1988). *The other world: Spiritualism and psychical research in England, 1850-1914* (1. paperback-ed). Cambridge Univ. Pr.
- Padmanabhan, D. (2017). From distress to disease a critique of the medicalisation of possession in DSM 5.pdf. *Anthropology & Medicine*, 24(3), 261–275.
- Palmer, G., & Hastings, A. (2013). Exploring the Nature of Exceptional Human Experiences: Recognizing, Understanding, and Appreciating EHEs. In H. L. Friedman & G. Hartelius (Eds.), *The Wiley-Blackwell Handbook of Transpersonal Psychology* (1st ed., pp. 331–351). Wiley. <https://doi.org/10.1002/9781118591277.ch18>

- Parnas, J., & Henriksen, M. G. (2016). Mysticism and schizophrenia: A phenomenological exploration of the structure of consciousness in the schizophrenia spectrum disorders. *Consciousness and Cognition*, 43, 75–88. <https://doi.org/10.1016/j.concog.2016.05.010>
- Poole, F. J. P. (1986). Metaphors and maps: Towards comparison in the anthropology of religion. *Journal of the American Academy of Religion*, 411–457.
- Prince, M. (1978). *The dissociation of a personality: The hunt for the real Miss Beauchamp* (C. Rycroft, Ed.). Oxford University Press.
- Radvansky, G. A., & Zacks, J. M. (2014). *Event cognition*. Oxford University Press.
- Reddish, P., Tong, E. M. W., Jong, J., Lanman, J. A., & Whitehouse, H. (2016). Collective synchrony increases prosociality towards non-performers and outgroup members. *British Journal of Social Psychology*, 55(4), 722–738. <https://doi.org/10.1111/bjso.12165>
- Roepstorff, A., Niewöhner, J., & Beck, S. (2010). Enculturing brains through patterned practices. *Neural Networks*, 23(8–9), 1051–1059. <https://doi.org/10.1016/j.neunet.2010.08.002>
- Rosenzweig, S. (1987). Sally Beauchamp’s career: A psychoarchaeological key to Morton Prince’s classic case of multiple personality. *Genetic, Social, and General Psychology Monographs*, 113(1), 5–60.
- Rosenzweig, S. (1988). The identity and idiodynamics of the multiple personality “Sally Beauchamp”. A confirmatory supplement. *Am Psychol*, 43, 45–48.
- Russo-Netzer, P., & Icekson, T. (2020). Engaging with life: Synchronicity experiences as a pathway to meaning and personal growth. *Current Psychology*.
- Shweder, R. A. (2015). Cultural Psychology. In *International Encyclopedia of the Social & Behavioral Sciences* (pp. 478–483). Elsevier. <https://doi.org/10.1016/B978-0-08-097086-8.24053-1>

- Sidgwick, E. (1915). A contribution to the study of the psychology of Mrs. Piper's trance phenomena. *Proceedings of the Society for Psychical Research*, LXXI, 1–645.
- Smith, D. W. (2018). Phenomenology. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Phenomenology* (Summer 2018).
<<https://plato.stanford.edu/archives/sum2018/entries/phenomenology/>>
- Smith, F. M. (2006). *The self possessed: Deity and spirit possession in South Asian literature and civilization*. Columbia University Press.
- Sommer, A. (2011). Professional Heresy: Edmund Gurney (1847—88) and the Study of Hallucinations and Hypnotism. *Medical History*, 55, 383.
- Spanos, N. P. (1994). Multiple Identity Enactments and Multiple Personality Disorder: A Sociocognitive Perspective. *Psychological Bulletin*, 116(1), 143–165.
- Taves, A. (1999). *Fits, trances, and visions: Experiencing religion and explaining experience from Wesley to James*. Princeton University Press.
- Taves, A. (2009a). *Religious experience reconsidered: A building-block approach to the study of religion and other special things*. Princeton University Press.
- Taves, A. (2009b). William James revisited: Rereading the Varieties of Religious Experience in transatlantic perspective. *Zygon*, 44(2), 415–432.
- Taves, A. (2014). A Tale of Two Congresses: The Psychological Study of Psychical, Occult, and Religious Phenomena, 1900-1909. *Journal of the History of the Behavioral Sciences*, 50(4), 376–399. <https://doi.org/10.1002/jhbs.21691>
- Taves, A. (2020). Mystical and Other Alterations in Sense of Self: An Expanded Framework for Studying Nonordinary Experiences. *Perspectives on Psychological Science*, 15(3), 669–690. <https://doi.org/10.1177/1745691619895047>

- Taves, A., & Asprem, E. (2017). Experience as event: Event cognition and the study of (religious) experiences. *Religion, Brain & Behavior*, 7(1), 43–62.
- Taves, A., & Asprem, E. (2020). The Building Blocks Approach: An Overview. In G. Larsson, J. Svensson, & A. Nordin (Eds.), *Building blocks of religion: Critical applications and future prospects*. Equinox Publishing Ltd.
- Taylor, E. (1984). *William James on exceptional mental states: The 1896 Lowell lectures*. University of Massachusetts Press.
- Taylor, E. (1996). *William James on consciousness beyond the margin*. Princeton University Press.
- Turner, R. P., Lukoff, D., Barnhouse, R. T., & Lu, F. G. (1995). Religious or spiritual problem: A culturally sensitive diagnostic category in the DSM-IV. *The Journal of Nervous and Mental Disease*, 183(7), 435–444.
- Vilaça, A. (2010). *Strange enemies: Indigenous agency and scenes of encounters in Amazonia* (D. Rodgers, Trans.). Duke University Press.
- Winkelman, M. J., & Hoffman, M. (2016). Hallucinogens and Entheogens. In R. A. Segal & K. Von Stuckrad (Eds.), *Vocabulary for the Study of Religion* (pp. 126–132). Brill.
- Yeshurun, Y., Swanson, S., Simony, E., Chen, J., Lazaridi, C., Honey, C. J., & Hasson, U. (2017). Same Story, Different Story: The Neural Representation of Interpretive Frameworks. *Psychological Science*, 28(3), 307–319.
- Zacks, J. M., & Tversky, B. (2001). Event structure in perception and conception. *Psychol Bull*, 127(1), 3–21.
- Zimdars-Swartz, S. L. (1991). *Encountering Mary: Visions of Mary from la Salette to Medjugorje*. Princeton University Press.